

REMARKS

Claims 11-25 are pending. Claims 14-16 and 19 are withdrawn. Claims 11-13, 17, 18 and 20-25 are rejected.

Claims 11-25 are amended to correct for a typographical error and to address the Examiner's objections as discussed below. No new matter has been added.

Reconsideration in light of the following remarks is respectfully requested.

Applicants have not dedicated or abandoned any unclaimed subject matter and moreover have not acquiesced to any rejections and/or objections made by the Patent Office. Applicants reserve the right to pursue prosecution of any presently excluded claim embodiments in future continuation and/or divisional applications.

Objection to the Specification

The Examiner has objected to the disclosure for certain informalities. Applicants have amended the disclosure to address these informalities and request that the Examiner withdraw this objection.

Objection to the Claims

The Examiner has objected to claims 12, 13, 17, 18 and 20-24 for reciting "A method" instead of "The method." Applicants have amended the claims to address this informality and request that the Examiner withdraw this objection.

Claim Rejections - 35 USC § 112

35 USC 112, paragraph 1

The Examiner has rejected claims 13 and 20 under 35 USC 112, paragraph 1, for allegedly failing to comply with the written description requirement.

According to the Examiner, the specification fails to define or provide any disclosure to support the phrase "applying the output waveform to a digital lock-in amplifier" recited in claim 13. However, paragraph 0022 states that "suitable 'output' AC techniques include, but are not limited to, . . . bandwidth narrowing techniques (including lock-in detection schemes, . . .).]" Paragraph 0414 states that "[t]he presence of the ETMs at the surface of the monolayer can be detected in a variety of ways. . . . These methods include time or frequency dependent methods based on AC or DC currents, pulsed methods, lock-in techniques, filtering (high pass, low pass, band pass), and time-resolved techniques including time-resolved fluorescence." One of skill in

the art would understand that lock-in techniques require lock-in amplifiers. Paragraph 0451 discloses that “[t]he response from an electrochemical cell can be processed with a lock-in amplifier.” Example 2 at paragraph 0552 discloses that “[t]he transconductance amplifier was equipped with summing circuitry that combines a DC ramp from the computer DAQ card and an AC sine wave from the lock-in amplifier (SR830 Stanford Instruments). . . . The output current was fed into the lock-in amplifier[.]” The specification therefore provides support for claim 13 reciting “applying the output waveform to a digital lock-in amplifier”.

The Examiner also alleges that the specification fails to provide support for claim 20 reciting that “the input waveform comprises at least a portion having a frequency of about 100 kHz”. Paragraph 0390 of the specification however states that

“[t]he first input signal comprises at least an AC component. The AC component may be of variable amplitude and frequency. . . . The AC frequency ranges from about 0.01 Hz to about 100 MHz, with from about 10 Hz to about 10 MHz being preferred, and from about 100 Hz to about 20 MHz being especially preferred.”

The specification therefore provides support for claim 20, reciting that “the input waveform comprises at least a portion having a frequency of about 100 kHz.”

Because the specification provides support for all the limitations recited in claims 13 and 20, Applicants request that the Examiner withdraw the rejection based on new matter.

35 USC 112, paragraph 2

The Examiner has rejected claims 11-13, 17, 18 and 20-25 under 35 USC 112, paragraph 2, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention. Applicants respectfully remind the Examiner that “if [a claim is] rejected as indefinite, the examiner should point out wherein the indefiniteness resides[.]” MPEP 707.07(d). In paragraph 7 of the current Office Action, the Examiner has not stated wherein the indefiniteness resides and has not provided reasons for finding that the claims fail to particularly point out and distinctly claim the subject matter that Applicants regard as the invention. Applicants request that the Examiner either withdraw the rejection or clarify the grounds for rejection under 35 USC 112, paragraph 2.

The Examiner has rejected claim 11 or 25 as allegedly being vague and indefinite. The Examiner states that although claim 11 or 25 is directed to a method for detecting the presence of target analytes, there is no method step for detecting the presence of target analyte and the goal of

the claim cannot be met. In the interest of furthering prosecution, claims 11 and 25 have been amended. Applicants request that the Examiner withdraw this rejection.

Claim Rejections – 35 USC § 102

The Examiner has rejected claims 11-13, 17, 18, 20, 21, 24 and 25 under 35 USC 102(e) as allegedly being anticipated by US Patent 6,013,459 to Meade.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP 2131 (quoting *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987). Claims 11 and 25 both recite “a self-assembled monolayer”. The passage in the ‘459 Patent (column 17, lines 23-42) cited by the Examiner nowhere discloses “a self-assembled monolayer”. The ‘459 Patent therefore does not anticipate claims 11-13, 17, 18, 20, 21, 24 and 25. Applicants request withdrawal of this rejection.

Claim Rejections – 35 USC § 103

The Examiner has rejected claims 22 and 23 under 35 USC 103(a) as allegedly being unpatentable over US Patent 6,013,459 to Meade in view of US Patent 5,487,032 to Mihara et al.

35 USC 103(c)(1) states that

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person.

The ‘459 Patent does not qualify as a reference under 35 USC 102(a) or 102(b).

If the publication or issue date of a reference is more than 1 year prior to the effective filing date of the application, the reference may be used as a basis for a rejection under 35 USC 102(b). See MPEP 706.02(a)(II)(A). For 35 USC 102(a) to apply, the reference must have a publication date earlier in time than the effective filing date of the application. MPEP 706.02(a)(II)(C). The ‘459 Patent was issued on January 11, 2000. The instant application claims priority to Application No. 60/100,730 filed on September 17, 1998. Since the ‘459 Patent was issued after the effective filing date of the instant application, the ‘459 Patent cannot be used as a reference under either 35 USC 102(a) or 102(b).

The '459 Patent and the claimed invention were, at the time the claimed invention was made, owned by the same person.

The present Application No. 10/714,489 and US Patent 6,013,459 were, at the time the invention of Application No. 10/714,489 was made, owned by Clinical Micro Sensors, Inc.

Applicants further note that US Patent 6,013,459 is assigned to Clinical Micro Sensors, Inc. See Reel/Frame 008904/0599 (recorded January 9, 1998). The present application is also assigned to Clinical Micro Sensors, Inc. See Reel/Frame 010831/0634 (recorded May 15, 2000) and 013494/0064 (recorded November 18, 2002).

In view of the above statement of common ownership as well as the referenced assignments, US Patent 6,013,459 is not available as a basis of rejection of claims 22 and 23 under 35 USC 103(a). See MPEP 706.02(I)(2)(II). Applicants request withdrawal of the rejection.

CONCLUSION

Applicants believe the claims are in a condition for allowance. Early notification thereof is respectfully requested. The Examiner is invited to call the undersigned at 415.442.1000 to resolve any questions. Although Applicants do not believe any additional fees are required, the Commissioner is authorized to charge any additional fees that may be required or to credit any overpayment to Deposit Account No. 50-0310 (Docket No. 067456-5012-US02).

Respectfully submitted,

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Filed Under 37 C.F.R. 1.34